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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

NORTHWEST ENVIRONMENTAL
ADVOCATES, a non-profit corporation,

Plaintiff,

Civil No.: 05-1876-HA

v.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, a United States
Government Agency, NATIONAL
MARINE FISHERIES SERVICE, a part of
the National Oceanic and Atmospheric
Administration, a part of the United States
Department of Commerce, and UNITED
STATES FISH AND WILDLIFE
SERVICE, a part of the United States
Department of the Interior,

Defendants, and

**(CORRECTED) MEMORANDUM IN
SUPPORT OF PLAINTIFF'S MOTION
FOR PARTIAL SUMMARY
JUDGMENT ON ENDANGERED
SPECIES ACT CLAIMS**

(Oral Argument Requested)

THE STATE OF OREGON,

Intervenor-Defendant, and

NORTHWEST PULP AND PAPER
ASSOCIATION,

Intervenor-Defendant.

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INTRODUCTION

Centuries of human use, resource extraction, and unregulated pollution have degraded Oregon's streams and rivers, and contributed to the precipitous decline of most cold water fish. To begin to remedy this problem, the Environmental Protection Agency (EPA), States and tribes in the Northwest, the U.S. Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) initiated a process to recommend water quality standards pursuant to the Clean Water Act (CWA) that could serve "as an important tool for the protection and recovery of threatened and endangered salmonid species in the Pacific Northwest." FWS 419 at 09082. Water quality standards are vital to these fish both legally and biologically. Such standards govern decisions about allowable pollution levels and set water quality restoration targets under the CWA; in turn, the quality of waters that fish inhabit is central to their continued existence, as well as their prospects for increasing their numbers to more secure levels.

Unfortunately, as explained in detail in the following pages, Oregon established – and EPA approved – water quality standards that in many cases are likely to *harm* salmon, steelhead, and bull trout (collectively "salmonids") rather than help protect and restore these species. Pursuant to their obligations under the Endangered Species Act (ESA), FWS and NMFS (collectively the "Services") acknowledged that Oregon's standards will indeed adversely affect protected salmonids in many cases, but nonetheless determined that EPA's approval of these standards was consistent with the agency's obligations under the ESA. However, as Plaintiff explains below, FWS and NMFS failed in several respects to comply with the ESA in assessing EPA's approval of Oregon's water quality standards. Moreover, the record in this case fails to support many of the Services' biological conclusions.

LEGAL AND FACTUAL BACKGROUND

I. The Clean Water Act and Water Quality Standards

As explained in more detail in Northwest Environmental Advocates' (NWEA)¹ accompanying brief, the CWA established a cooperative federalism approach to protecting water quality. States must review and revise their water quality standards at least every three years, thereafter submitting new and revised water quality standards to EPA for review and approval. 33 U.S.C. § 1313(c)(1). EPA must then review the submitted standards and determine whether the standards meet the requirements of the CWA. 33 U.S.C. § 1313(c)(3); 40 C.F.R. § 131.5, 131.13, 131.21(b). EPA's decision is subject to the requirements of the ESA.

II. The Endangered Species Act and Federal Agencies

The ESA seeks to "provide a program for the conservation of . . . endangered species and threatened species," as well as "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. §1531(b). The U.S. Supreme Court noted that "[t]he plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost." *TVA v. Hill*, 437 U.S. 153, 184 (1978).

Section 7 of the ESA requires federal agencies to ensure that any action they take is not likely to "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species[.]" 16 U.S.C. § 1535(a)(2). For assistance in complying with this obligation, an agency must formally consult with the NMFS and/or FWS when the action agency concludes that its proposed action

¹ NWEA has standing to pursue this action. *See* NWEA's Memorandum in Support of Plaintiff's Motion for Partial Summary Judgment on Clean Water Act Claims at 8 (hereinafter NWEA CWA Brief); *See also*, Declaration of Peter Huhtala, Declaration of Mark Riskedahl, Declaration of Nina Bell.

will adversely affect a listed species. The Services then prepare a biological opinion (“BiOp”) assessing whether the proposed action is likely to cause jeopardy or adversely modify critical habitat. The Services must use the “best scientific and commercial data available” in complying with their section 7 obligations. 16 U.S.C. § 1536(a)(2).

If NMFS/FWS concludes that a proposed action is not likely to violate section 7 but will result in incidental “take”² of listed species, the Services issue an Incidental Take Statement (ITS). An ITS authorizes incidental take and sets forth “reasonable and prudent measures” and associated terms and conditions to minimize take. *Id.* at §1536(b)(4). An ITS also must specify the expected extent of take of the species. *See* 50 C.F.R. § 402.14(i)(1).

III. Water Quality and Imperiled Species in Oregon

In 2003, EPA issued its *Region 10 Guidance for Pacific Northwest State and Tribal Water Quality Standards* (Temperature Guidance), which provides recommendations to the states and tribes in setting temperature water quality standards. This guidance was expected to “significantly expedite[]” federal review of state water quality standards, but the Temperature Guidance specifically recognizes that “EPA and the Services must still examine every WQS submission on a case-by-case basis....” FWS 419 at 09081.

Oregon waters provide some of the last remaining habitat for at least fourteen “Evolutionarily Significant Units” (ESUs) of salmon and steelhead listed as threatened or endangered under the ESA, as well as two distinct population segments (DPSs) of bull trout listed as threatened. Each ESU and DPS is considered a separate listed “species” under the ESA. *See* 16 U.S.C. § 1532(16). These species vary tremendously in distribution within Oregon and in

² “The term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19).

conservation status. For example, Oregon Coast coho salmon persist in coastal streams from Cape Blanco to the Columbia River, and had a collective population of 239,000 in 2002; in contrast, Snake River sockeye migrate through the Columbia and Snake Rivers on their way to their spawning lake in Idaho, and had dwindled to *only seven fish* by 1999. NMFS 2 at 16, 11.

Since salmonids are cold blooded organisms, “their survival is dependent on external water temperatures.” FWS 516 at 10039. Salmon and steelhead have specific habitat requirements for each of their life stages as they progress from eggs to juveniles to migrating individuals, including adequate gravel substrate for spawning, water quality, water quantity, water temperature, and migration conditions. EPA 64 at 001983. However, temperature, “perhaps more than any other environmental parameter,” greatly affects the status of fish. EPA 124 at 014666. Thus, cold water temperatures are especially critical to salmon and steelhead survival and recovery. EPA 122 at 014601. Excessive temperatures affect “metabolism, growth rate, and disease resistance, as well as the timing of adult salmonid migrations, fry emergence, and smoltification.” *See* EPA 64 at 001984. Warm water temperatures enhance the negative effects of conventional and toxic pollutants and reduce available salmonid habitat. EPA 123 at 014626.

Bull trout have even more specific habitat requirements than most other salmonids. FWS 2 at 00126. They have a patchy distribution, even in pristine watersheds, such that degraded habitat quickly becomes unavailable to them. *Id.* Unlike other salmonids, bull trout exist in both resident and migratory forms. *Id.* The migratory form of bull trout are especially important in preserving the species because the migrating fish facilitate gene flow among local populations and are able to reestablish new populations in areas where bull trout have become locally extirpated. *Id.* High water temperatures block migratory bull trout and thus contribute

significantly to their decline. FWS 419 at 09094.

On December 10, 2003, Oregon Department of Environmental Quality (ODEQ) submitted to EPA its revised water quality standards for water temperature, intergravel dissolved oxygen (IGDO), and antidegradation implementation methods. These standards are extremely complex. For example, Oregon's temperature criteria apply to thousands of mile of streams and rivers across the state, and vary significantly according to location and time of year. These criteria are also subject to additional restrictions and exceptions. EPA consulted with the Services under section 7 of the ESA; both FWS and NMFS concluded that EPA's approval of Oregon's water quality standards would adversely affect salmon, steelhead, and bull trout in a number of ways, but nonetheless concluded that EPA's approval of the standards would not cause jeopardy to these fish. NMFS also found that the standards would not destroy or adversely modify designated critical habitat for listed salmon.³ On March 2, 2004, EPA issued its final approval of Oregon's water quality standards.

STANDARDS OF REVIEW

Federal Rule of Civil Procedure 56 allows entry of summary judgment if "there is no genuine issue of material fact and...the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). The Supreme Court encourages district courts to utilize summary judgment in appropriate cases. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-27 (1986). Use of summary judgment is appropriate in cases where plaintiffs challenge biological opinions. *Arizona Cattle Growers' Ass'n. v. U.S. Fish and Wildlife Service, Bureau of Land Management*, 273 F.3d 1229, 1233 (9th Cir. 2001) (resolving case on summary judgment).

³ At the time the Services issued their BiOps, only four salmon species had designated critical habitat; FWS had proposed to designate critical habitat for bull trout but had not issued a final designation decision. See EPA 189 at 001762; FWS 16.

A biological opinion is a reviewable final agency action that must be set aside if it is found to be “arbitrary, capricious, an abuse of discretion, or not otherwise in accordance with law.” *Bennett v. Spear*, 520 U.S. 154, 179 (1997). To avoid an arbitrary and capricious finding, the Service must show that it “considered the relevant factors and articulated a rational connection between the facts found and the choice made.” *Pacific Coast Fed’n of Fishermen’s Ass’ns. v. NMFS*, 265 F.3d 1028, 1034 (9th Cir. 2001) (citations omitted). “A biological opinion is arbitrary and capricious and will be set aside when it has failed to articulate a satisfactory explanation for its conclusions or when it has entirely failed to consider an important aspect of the problem.” *Greenpeace v. NMFS*, 80 F. Supp. 2d 1137, 1147 (W.D. Wash. 2000). Congress’ intent in the ESA “to halt and reverse the trend toward species extinction, whatever the cost” counsels close scrutiny of NMFS’s and FWS’s biological opinions. *TVA*, 437 U.S. at 184.

ARGUMENT

I. NMFS AND FWS FAILED TO ASSESS IMPACTS TO INDIVIDUAL SPECIES

As described above, the fourteen listed salmon and steelhead ESUs and two bull trout DPSs qualify as separate species for purposes of the ESA. The ESA’s protections and procedural requirements thus apply separately to each of these species, i.e. EPA would violate the ESA if it approved a water quality standard that jeopardizes only one listed ESU. FWS explicitly acknowledged this requirement in its BiOp, emphasizing that that its jeopardy analysis must be “completed at the DPS scale.” FWS 2 at 00124. Nothing in the ESA or its implementing regulations restricts the Services from evaluating the effects of a proposed federal action on multiple listed species within a single biological opinion, assuming that the consolidated biological opinion contains all the elements of the required analysis for each ESU.

The ESA and its applicable interpretations set forth specific requirements for the contents

of a BiOp. Section 7 requires that a biological opinion contain a “written statement...detailing how the agency action affects the species or its critical habitat.” 16 U.S.C. §1536(b)(3)(A); *see also* 50 C.F.R. §402.14(h)(2) (biological opinions must include a “detailed discussion of the effects of the action on listed species or critical habitat”). The Services’ joint Consultation Handbook provides a much more specific description of information the Services should include in a BiOp’s discussion of a listed species’ response to a proposed action, including the number of individuals or populations affected, the species’ sensitivity to change when disturbed, the species’ resilience, i.e. “the characteristics of populations, species, or critical habitat units allowing them to recover from different magnitudes of disturbance,” and a species’ recovery rate. *See* FWS 257 at 06819-25. Including a detailed analysis of a proposed action’s effects on each listed species allows the Services to determine whether or not the action is likely to have acceptable impacts on each protected species.

In its BiOp, NMFS utterly fails to comply with these obligations in assessing the impacts of EPA’s approval of Oregon’s water quality standards on each listed species of salmon and steelhead. Rather than detailing how Oregon’s highly site-specific and time-of-year dependent water quality standards affect each species and its habitat, NMFS’s BiOp merely provides generic and cursory descriptions of the standards’ impacts on multiple listed species across the state. The BiOp’s broad and detail-free descriptions do not provide a rational basis for species-specific assessments as to whether affects on each listed species and its habitat may cause jeopardy to that particular species. Without species-specific analyses, the Services cannot “articulate[] a rational connection between the facts found and the choice made.” *NRDC v. U.S. Dep’t. of Interior*, 113 F.3d 1121, 1126 (9th Cir. 1997) (internal quotations omitted).

An example provides the best way to understand the BiOp’s shortcomings. In one part of

its BiOp, NMFS concluded that the 20°C criterion for salmon and steelhead migration is likely to adversely affect five salmon and steelhead ESUs due to elevated risk of disease and reduced viability of gametes in holding adults. NMFS 2 at 46. However, contrary to the ESA, its regulations, and the Consultation Handbook, NMFS made no effort to detail the degree of adverse effects on specific species, or assess whether each of the five listed species can withstand such effects. Yet such an inquiry is highly relevant to NMFS's jeopardy analysis. One of the five listed ESUs affected by the 20°C criterion, mid-Columbia River steelhead, had a total return of 143,032 wild fish in 2002. *Id.* 17. In contrast, another listed ESU that NMFS found would be adversely affected by this criterion, Snake River spring/summer chinook, is in far worse shape biologically; the most recent average run reported by NMFS was 3,820 fish, a figure that represents less than 0.3 percent of this run's historic abundance. *Id.* at 10.

Even assuming that the adverse effects identified by NMFS are of similar magnitude for both of these species,⁴ it requires no biological training to recognize that such impacts may be far more consequential for spring/summer chinook, a species whose population is only 2 percent the size of the steelhead population. However, NMFS made no effort in the BiOp to assess these different ESUs' relative populations, sensitivity to disturbance, resilience, or recovery rates in determining whether the identified adverse effects stemming from the 20°C criterion are likely to jeopardize these species. Instead, NMFS simply concluded that *all* adverse effects resulting from this criterion (as well as other adverse effects stemming from other water quality standards) are not likely to jeopardize *all* affected species, generically terming these myriad effects across the state "localized and mostly limited to the period of maximum water temperatures during the

⁴ It is entirely possible, of course, that the 20°C standard may have different degrees of adverse effect on different species. However, NMFS did not attempt in its BiOp to describe the magnitude of this standard's adverse effect on the five relevant species.

warmest part of the summer.” *Id.* at 53. Incredibly, NMFS even failed to detail the species-specific impacts of identified adverse effects on Snake River sockeye, whose most recent run size reported in the BiOp was *seven fish*. *Id.* at 11. NMFS made no effort to explain how a species so close to the brink of extinction can withstand *any* adverse impacts resulting from water quality standards.

It is instructive to compare NMFS’s analysis of the impacts of EPA’s proposed action in the BiOp at issue here with another NMFS BiOp for a proposed agency action similar in scope to Oregon’s state-wide water quality standards. In NMFS’s 2008 BiOp assessing proposed operations of the federal dams on the Columbia and Snake Rivers, the agency examined the proposal’s effects on the same species as in this case (except for coastal coho). Chapter eight of that BiOp provides detailed accounts of how the proposed action specifically affects each listed ESU; this analysis alone runs for 594 pages.⁵ In stark contrast, NMFS BiOp in this case contains no discussion whatsoever of the species-specific impacts likely to result from implementation of Oregon’s water quality standards, and the *entire* BiOp is only 58 pages long.

FWS’s BiOp suffers from the same flaw. Instead of providing a detailed description of the effects of Oregon’s standards on each of the two affected DPS in the state, Klamath River bull trout and Columbia River bull trout, FWS lumped together these two discrete protected entities throughout the BiOp’s analysis of effects, despite clear evidence that the risks these DPSs face differ significantly. When it listed Klamath bull trout in 1998, FWS determined that this DPS faces a 70 to 90 percent likelihood of extinction within the next 100 years. 63 Fed. Reg. 31,647, 31,651 (June 10, 1998). Over 40 percent of the known populations in the Klamath have been extirpated since the 1960s. FWS 180 at 01858. The remaining seven subpopulations

⁵ See https://pcts.nmfs.noaa.gov/pls/pcts-pub/pcts_upload.summary_list_biop?p_id=27149

of Klamath bull trout occupy only 34 to 38 kilometers of streams in three watersheds; six of these subpopulations are at a high risk of extirpation from natural factors alone given their isolation and low abundance. FWS 2 at 00125. In contrast, FWS identified 141 subpopulations of bull trout across hundreds of miles of the much larger Columbia DPS.

Despite the tremendous disparity in risks facing the two bull trout DPSs, FWS failed entirely to describe the magnitude of adverse impacts on each bull trout DPS stemming from approval of Oregon's water quality standards, and failed to discuss the significance of these impacts to the two DPS' respective likelihoods of survival and recovery. In contrast, the Bull Trout Temperature Peer Review panel expressly noted the conservation differences between bull trout populations, urging that "EPA should entertain the possibility of giving special consideration to bull trout populations inhabiting small, isolated habitats, such as the [Jarbidge DPS] and Klamath basins." FWS 443 at 09242. FWS ignored such advice; in assessing EPA's decision, FWS merely reported a variety of generic adverse impacts to bull trout generally, and lumped together the two discrete DPSs in concluding that these adverse effects will not lead to jeopardy.

FWS's BiOp provides stark examples of how the agency's failure to assess adverse impacts to specific species has resulted in an arbitrary conclusion regarding the likelihood of jeopardy. FWS declared in the BiOp that "[r]econnecting the isolated populations of bull trout is imperative to their survival and recovery." FWS 2 at 00176. Nonetheless, the agency's BiOp contains no discussion of whether Oregon's water quality standards will allow any of the isolated bull trout populations in the state to reconnect, whether the standards will preclude this process, or whether this will increase the risk of extinction to either DPS. For example, FWS determined that designation of the 20°C criterion for Lahontan trout "will not provide adequate protection to

bull trout.” *Id.* The agency generically dismissed the biological consequences of this criterion as “not [] of a magnitude, duration or extent that will affect the long-term recovery of bull trout,” but provided no discussion of how many fish are likely to be adversely affected, or how this will affect efforts to restore migration between isolated bull trout populations. *Id.* Such an analysis is obviously crucial – and due to its limited scope should be relatively simple – for the seven isolated populations of Klamath bull trout, which face a near-certain likelihood of extinction over the next century even without additional adverse effects to their habitat.

FWS’ description of impacts is even more generic regarding the remaining standards and criteria FWS identified as having adverse effects on bull trout. *See* FWS 2 at 00152 (approval of IGDO standard will not cause adverse effect “of a magnitude, duration or extent that would affect the long-term survival of *listed species*”); *id.* at 00170 (approval of human allowance provision will “pose significant risks to the long-term survival of the subject *listed species*”); *id.* at 00172 (thermal plume provision will cause “delayed migration and sublethal physiological effects to the *subject species*) (emphasis added).⁶ There is nothing in the record to explain how these adverse effects will specifically impact the two distinct bull trout species, despite FWS’s earlier recognition that it is not reasonable to conclude that each listed species will experience the same adverse effects to the same extent. *See* FWS 15 at 00367 (“In areas where bull trout populations are already small, the risks will be greater.”).

In sum, the Services performed a “one-size-fits-all” analysis of the effects of Oregon’s

⁶ With respect to IGDO and the human use allowance, even FWS was concerned that the BiOp lacked sufficient detail in explaining these effects. *See* FWS 293 at 07907 (IGDO: “What ARE the effects? Death/mortality of embryos, reduced survival, disease risks, injury, slowed growth...then define how these effects for these species relate to overall impacts across the species [] or DPS.”) (emphasis in original); *Id.* at 07927 (Human use allowance: “Lay out what the effects are. Harm? Injury? etc.”).

water quality standards on 14 separate salmon and steelhead species and two distinct bull trout species. However, the record indicates that the effects of these standards could vary significantly in magnitude and importance for different species, and the Services' BiOps themselves describe the vastly different conservation status of these various species. Just as the common flu typically only inconveniences a reasonably healthy adult – but is a leading killer of the elderly and infirm – the adverse effects from Oregon's water quality standards identified by the Services could prove to be the final blow for species on the brink of extinction such as Snake River sockeye and Klamath bull trout. On the other hand, it is also possible that these effects may not cause jeopardy to any listed species. But it is impossible to know which is correct without more than merely generic analyses. The Services are not permitted "to implicitly conclude that a species would not be jeopardized by a proposed activity" without articulating a rational basis in the record for such a conclusion. *Pacific Coast Federation of Fishermen's Associations v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1091 (9th Cir. 2005). The Service's failure to assess adverse impacts to each individual species, and their failure to assess the likelihood of jeopardy individually for each individual species, precludes the Service from "articulating a rational connection between the facts found and the choices made" in the BiOps, and the Services' "no jeopardy" conclusions are therefore arbitrary. *See NRDC v. U.S. Dep't. of Interior*, 113 F.3d at 1126 (9th Cir. 1997).

II. NMFS FAILED TO PROPERLY ASSESS AFFECTS ON CRITICAL HABITAT

For years, NMFS and FWS interpreted section 7's prohibitions against jeopardy and destroying or adversely modifying critical habitat as prohibiting the same conduct, i.e. agency action that appreciably reduces the likelihood of a listed species' bare survival. *See Arizona Cattle Growers' Ass'n v. Kempthorne*, 534 F. Supp. 2d 1013, 1032-33 (D. Ariz. 2008)

(discussing FWS's notion of "functional equivalence" between the jeopardy and critical habitat standards). However, the Ninth Circuit put an end to this interpretation with its decision in *Gifford Pinchot Task Force v. U. S. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004). In that case, the court observed that survival and recovery were "two different (though complimentary) goals of the ESA," and held that "'destruction or adverse modification' could occur when sufficient critical habitat is lost so as to threaten a species' recovery even if there remains sufficient critical habitat for the species' survival." *Id.* at 1070. Applying this interpretation of section 7's critical habitat standard, the *Gifford Pinchot* Court found unlawful several FWS biological opinions because they did not assess impacts to species recovery in determining whether the federal action at issue was likely to destroy or adversely modify critical habitat. *See also National Wildlife Federation v. NMFS*, 524 F.3d 917, 934 (9th Cir. 2008) (overturning a NMFS BiOp for failing to adequately assess recovery of listed salmonids in its critical habitat analysis).

Perhaps not surprisingly, given that NMFS's BiOp in this case pre-dates by a few months the Ninth Circuit's decision in *Gifford Pinchot*, NMFS unlawfully failed to assess impacts on salmon recovery in analyzing whether EPA's decision to approve Oregon's water quality standards is likely to destroy or adversely modify critical habitat. Four listed salmon species had designated critical habitat at the time NMFS finalized its BiOp. *See* NMFS 2 at 9. In the BiOp's "Integration and Synthesis of Effects" section, NMFS concludes that "any adverse effects from EPA's approval of the Oregon revised rules are unlikely to be of a magnitude, duration or extent that would reduce the long term *survival* of the ESUs." *Id.* at 53 (emphasis added).

Like the BiOps found unlawful in *Gifford Pinchot*, NMFS's BiOp in this case contains no analysis whatsoever of how Oregon's water quality standards are likely to affect recovery of the

four salmon ESUs with designated critical habitat. The BiOp's sole discussion of impacts to critical habitat notes only that "[e]ffects to designated critical habitat...would be similar to the effects to listed species described [in the Effects of the Proposed Action section]." *Id.* at 52. This section contains no analysis of water quality standards' impacts on salmon recovery. The term "recovery" appears only twice, once in reference to a NMFS recovery team and once again when NMFS explains that Oregon's regulations governing forest practices, agriculture, and rural development are not sufficient to protect salmon survival and recovery. *Id.* at 42, 52.

As in *Gifford Pinchot*, it is not harmless error that NMFS's BiOp failed to consider the effects of Oregon's water quality standards on the chances for recovery for listed salmon with designated critical habitat. The BiOp indicates that these standards will have a variety of adverse impacts on listed species through alteration of the waters these fish inhabit. More tellingly, the BiOp itself notes that current habitat conditions for Oregon fish are so poor that "there must be a significant improvements [sic] in the environmental conditions [listed salmon and steelhead] experience...to meet the biological requirements for survival and recovery of these species." *Id.* at 24. Therefore, by failing to evaluate the impacts of Oregon's standards on recovery of the four listed salmon ESUs with designated critical habitat, it was impossible for NMFS to fulfill its statutory obligation to provide EPA with advice as to whether EPA's approval of Oregon's standards is likely to destroy or adversely modify critical habitat. Thus, the outcome here should be identical to that in *Gifford Pinchot*.

III. THE RECORD DOES NOT SUPPORT NMFS' NO JEOPARDY FINDING

A. NMFS Failed To Consider Recovery In Its Assessment of Jeopardy.

Impacts on salmon and steelhead recovery are also relevant to NMFS's assessment of whether EPA ensured against jeopardy to listed salmon and steelhead in approving Oregon's

water quality standards. The Ninth Circuit reached this conclusion in *National Wildlife Federation v. National Marine Fisheries Service*, 524 F.3d 917, 934 (9th Cir. 2008), where the court concluded that “significant impairment of recovery efforts or other adverse effects [besides survival impacts] which rise to the level of ‘jeopardizing’ the ‘continued existence’ of a listed species can also be the basis for issuing a ‘jeopardy’ opinion” (bracketed language in original); *see also id.* at 933 (“considering recovery impacts could change the jeopardy analysis”). NMFS itself has also explicitly linked recovery to a reasoned jeopardy analysis. In 1999, NMFS issued a policy document called “The Habitat Approach,” which provides guidance for assessing the impacts of proposed federal action on freshwater habitat for listed salmonids. NMFS 128 at 1. According to NMFS’ policy, recovery is a crucial element of a jeopardy analysis for salmon and steelhead because “impeding a species’ progress toward recovery exposes it to additional risk and so reduces its likelihood of survival.” *Id.* at 2. As a consequence, “for an action to not ‘appreciably reduce’ the likelihood of survival, it must not prevent or appreciably delay recovery.” *Id.* The quoted language refers to the section 7 regulation’s definition of jeopardy, which means to “reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild....” 50 C.F.R. §402.02. Finally, as noted above, NMFS’ BiOp on water quality standards unmistakably points to a need to move listed salmon and steelhead in the direction of recovery in order to avoid jeopardy, providing that the status of these species “is such that there must be a significant improvements [sic] in the environmental conditions [listed salmon and steelhead] experience...to meet the biological requirements for survival and recovery of these species.” NMFS 2 at 24.

Despite appellate case law, explicit NMFS policy direction, and biological findings by NMFS expressly linking salmonids’ prospects for recovery with avoiding jeopardy, the agency

failed to consider recovery of salmon and steelhead when assessing the likelihood of jeopardy to these fish as a result of EPA's approval of Oregon's water quality standards. As explained in Section II above, NMFS's BiOp completely omits any analysis of these standards' effects on the protected ESUs' likelihood of recovery, instead finding only that identified adverse impacts on salmon and steelhead resulting from Oregon's standards will not reduce "long term survival" of listed species. NMFS 2 at 53. When an agency completely fails to consider an important aspect of a problem, its decision is arbitrary. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Ins. Co.*, 463 U.S. 29, 43 (1983).

B. NMFS's "No Jeopardy" Conclusions are Arbitrary Given the Myriad Adverse Impacts to Already Degraded Conditions as a Result of Oregon's Water Quality Standards.

When making a jeopardy determination, NMFS must consider the underlying baseline conditions and ensure that the proposed action does not "tip the species into jeopardy." *National Wildlife Federation*, 524 F.3d at 929. In its BiOp, NMFS concluded that

not all of the biological requirements of the listed...species for freshwater habitat in general, water quality in particular, are being met under the environmental baseline for many streams and watersheds occupied by listed salmon and steelhead in Oregon.... Any further degradation of these conditions would significantly reduce the likelihood of survival and recovery of these species due to the status of the environmental baseline.

NMFS 2 at 24. The phrase "significantly reduce the likelihood of survival and recovery" is nearly a verbatim excerpt from the regulatory definition of "jeopardize the continued existence of." See 50 C.F.R. §402.02. NMFS's BiOp thus explicitly provides that actions that lead to further degradation of Oregon's water quality will jeopardize affected ESUs.

In its BiOp, NMFS concludes that implementation of Oregon's water quality standards will lead to additional degradation of salmonid habitat such that all of the 14 threatened and endangered ESUs will suffer adverse impacts. Specifically, NMFS found that application of the

intergravel dissolved oxygen (IGDO) standard will permit water quality impacts that “do not provide for adequate levels of IDGO for embryos and alevins of listed salmon and steelhead at all times,” and determined that the application of the human use allowance and thermal plume limitations will allow additional heat to Oregon waterways so as to adversely affect all listed ESUs. NMFS 2 at 32, 51-52. NMFS also concluded that under-designation of Core Cold Water Habitat Use (16°C) and over-designation of Salmon and Trout (steelhead) Juvenile and Migration Use (18°C) will lead to increases in water temperatures that will result in a variety of adverse impacts to five ESUs,⁷ and determined that designation of the Salmon and Steelhead Migration Corridors Use (20°C) in four specific river and stream segments will cause habitat-related adverse impacts to five listed ESUs.⁸ NMFS 2 at 43-45, 46.

NMFS’s findings unmistakably show that Oregon’s water quality standards will lead to further degradation of habitat condition for listed salmonids. For example, the very purpose of the Oregon standards’ Human Use Allowance is to allow for further degradation of habitat, i.e. “to permit additional heat into a stream where the natural conditions criterion is the applicable criterion [i.e. the water is naturally hotter than otherwise applicable water quality standards] or where waters are currently exceeding the biologically-based numeric criteria.” NMFS 2 at 49. It could not be any clearer that this standard permits “further degradation” of already inadequate habitat conditions for salmon and steelhead, a conclusion confirmed by EPA’s and NMFS’s findings that this standard adversely affects all listed ESUs. Similarly, the IGDO standard allows pollution discharges that could further degrade existing levels of dissolved oxygen, stopping only

⁷ The five affected ESUs are: Oregon coastal and southern Oregon/northern California coastal coho, and mid-Columbia River, lower Columbia River, and Snake River steelhead.

⁸ The five affected ESUs are Upper Willamette chinook and steelhead, mid-Columbia steelhead; Snake River spring/summer chinook and steelhead.

at a point that NMFS acknowledges will not adequately protect embryos and alevins of eleven listed salmonids. The list of permitted habitat degradation goes on and on as described in the preceding paragraph, with NMFS's BiOp cataloging additional adverse effects to a host of ESUs as a result of habitat impacts caused by approval of Oregon's water quality standards.

In its BiOp, NMFS fails to provide any semblance of a rational connection between a) the BiOp's express finding that "any degradation" of the environmental baseline will lead to jeopardy; b) the BiOp's extensive catalog of adverse effects to salmon and steelhead resulting from Oregon's water quality standards' effects on fish habitat; and c) the BiOp's ultimate conclusion that EPA's approval of these standards is not likely to jeopardize listed species. NMFS's "no jeopardy" determination is thus arbitrary and capricious. *Pacific Coast Fed'n of Fishermen's Ass'ns*, 265 F.3d at 1034.

C. NMFS Failed to Consider Cumulative Effects.

NMFS must assess "whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." 50 C.F.R. §402.14(g)(4). "Cumulative effects" under the ESA are defined as "effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." 50 C.F.R. § 402.02. NMFS identified nonpoint source water pollution from commercial forestry and agricultural practices as the primary source of cumulative effects to salmonids in Oregon. NMFS 2 at 52. While NMFS identified the cumulative effects to salmon, it failed to *assess* whether these impacts when combined with EPA's approval of Oregon's standards would jeopardize listed salmonids.

Properly assessing cumulative impacts is especially important in this context because

“temperature impairments in Pacific Northwest waters are largely caused by non-point sources.”

EPA 104 at 013569. Oregon’s water quality standards include several provisions that deem nonpoint sources, such as forestry and agricultural operations, in compliance with temperature standards, as long as they meet best management practices as defined by other state laws. *See* OAR 340-041-0028(12)(e)-(h). EPA failed to review and act upon these nonpoint source exemptions. Regardless of whether EPA had a duty to review Oregon’s rules for nonpoint sources,⁹ however, NMFS had a clear duty to assess how these exemptions affect the applicability of the rest of Oregon’s water quality standards.

After stating that NMFS “generally does not consider existing rules governing timber harvests [and] agricultural practices. . . to be sufficiently protective . . . to support the survival and recovery of listed species,”¹⁰ NMFS failed to integrate that conclusion into its analysis of EPA’s approval. *Id.* at 52. As explained in Section III.B. above, the BiOp notes that jeopardy to listed salmon and steelhead is likely if “any further degradation” of existing conditions takes place. Even though the cumulative effects discussion reports that further degradation of salmonid habitat is a virtual certainty as a result inadequate state regulations, NMFS only concluded that “habitat functions for listed salmon and steelhead may be at risk as a result of future activities on some non-federal lands within the state.” *Id.* at 2. But, the question is not whether a “habitat function” may be at risk or not. The question is whether the likely effects of EPA’s proposed

⁹ See NWEA CWA brief at 9-16.

¹⁰ *See also* NMFS 36 at 10 (stressing that a 2002 DEQ and Oregon Department of Fish & Wildlife “sufficiency analysis” demonstrated that the state forest practice rules do not meet water quality standards); EPA and NMFS Findings for the Oregon Nonpoint Coastal Program, available at <http://coastalmanagement.noaa.gov/nonpoint/docs/findor.txt>. (finding, *inter alia*: Oregon’s forest practices and implementation are “inadequate to ensure that water quality standards are attained and maintained and beneficial uses protected;” Oregon failed to ensure agricultural water quality management plans can be implemented).

action, *together with* anticipated cumulative effects, is likely to jeopardize listed ESUs or adversely modify their critical habitat. 50 C.F.R. §402.14(g)(4). The agency's BiOp fails to provide a rational explanation for why adverse cumulative effects, added to an environmental baseline that presently fails to meet the needs of listed fish, is consistent with "no jeopardy" and "no adverse modification" conclusions.

D. NMFS Individual Conclusions for Each Criteria Cannot be Reconciled with the Record, and Consequently the BiOp is Arbitrary and Capricious.

As explained below, NMFS' BiOp makes a number of biological findings and reaches several "no jeopardy" conclusions for which the record simply contains no support.¹¹

Salmon and Steelhead Spawning through Fry Emergence: NMFS concurred with EPA's findings that this criterion is not likely to adversely affect listed ESUs because it is consistent with EPA's Temperature Guidance. NMFS 2 at 41. EPA assumed that the 13°C criterion to protect this use is also likely to result in temperatures between 6-10°C to allow for egg incubation during winter and spring. NMFS 275 at 31. There is simply nothing in the record to support this assumption.

Steelhead Smoltification: EPA's Temperature Guidance recommends a 14°C criterion to protect steelhead smoltification. *Id.* Oregon declined to adopt any standard for this use, a decision NMFS found not likely to adversely affect listed steelhead based on a general belief by the "interagency team" that the 13°C Salmon and Steelhead Spawning through Fry Emergence criterion will protect steelhead smoltification generally (though NMFS noted that the John Day River is a "possible exception," but it asserted that steelhead will only "be exposed to waters

¹¹ NWEA in this section discusses impacts to salmon generically, though as demonstrated in Section I above, the ESA obligates NMFS to assess the impacts of Oregon's water quality standards on each listed ESU individually. NMFS' failure to do so for each of the factors discussed in this section exacerbates the problems discussed in this section.

below or slightly above 14°C waters during smoltification.”). NMFS 2 at 41. There is simply no evidence in the record to support NMFS’s assertion that an “interagency team” ever did *any* analysis of whether the 13°C spawning criterion – which generally applies in the upper portions of river basins – is likely to produce temperatures of 14°C in the mid to lower portions of any Oregon river basins in April and May as steelhead go through the smoltification process. Additionally, there is nothing in the record to support NMFS’ assertion that steelhead in the John Day will be exposed to “below or slightly above 14°C” in April and May. Even if this were true, temperatures above 14°C adversely affect steelhead smoltification. NMFS 275 at 16. Therefore, there is no rational connection between NMFS’ conclusion that John Day steelhead could face temperatures “slightly” above 14°C but will suffer no adverse effects.

Salmon and Steelhead Migration Corridors Use: NMFS concurs with EPA that this use, which carries a temperature criterion of 20°C, is likely to adversely affect five listed ESUs. The BiOp determines that these adverse effects are not likely to jeopardize the affected species, because disease risk and reproductive impacts resulting from this temperature will be only “localized.” However, this 20°C criterion applies to the lower 50 miles of the Willamette River, as well as the lower 184 miles of the John Day River. NMFS 2 at 45. The BiOp provides no explanation for why such a widespread designation will result in only “localized” adverse effects despite salmonids’ exposure to high temperatures during the hottest portion of the summer throughout scores of miles of salmonid habitat.

Intergravel Dissolved Oxygen (IGDO) criterion: NMFS determined that the proposed IGDO criterion is likely to adversely affect all listed ESUs because the standard may not supply sufficient oxygen to eggs and young salmonids “at all times.” NMFS 2 at 32. The BiOp also identifies the “brief period” of summer maximum water temperatures as a particular time when

this criterion will not provide adequate IGDO for embryos and alevins. *Id.* NMFS concludes, however, that adverse impacts from the IGDO criterion will be “localized” and thus not likely to jeopardize protected species. *Id.* at 53. Given that this criterion applies statewide, there is no support for NMFS assertion that adverse impacts due to the IGDO criterion will be “localized.”

Without a rational connection between information in the record and NMFS’s findings in the BiOp, NMFS findings above are arbitrary.

IV. THE RECORD DOES NOT SUPPORT FWS’ NO JEOPARDY FINDINGS

The Fish and Wildlife Service Biological Opinion suffers from two primary shortcomings.¹² First, the BiOp fails to offer any reasoned explanation for its finding that the approval of the 12°C bull trout spawning and rearing standard will not result in adverse effects after repeatedly concluding that 12°C was too hot for bull trout spawning to be protective. Second, FWS failure to account for the adverse impacts to migratory bull trout with respect to the 20°C Lahontan Cutthroat Trout criterion was arbitrary and capricious.

A. FWS’s Conclusion that the 12°C Juvenile Rearing and Spawning Criterion Was Not Likely to Adversely Affect Bull Trout Was Arbitrary and Capricious

As the Supreme Court pointed out in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 710 (1995) (O’Connor, J. concurring), making “it impossible for an animal to reproduce is to impair its most essential physical functions and to render that animal...biologically obsolete.” The same of course could be said for an entire species.

Whether Oregon’s water quality standards protect bull trout spawning, therefore, is a crucial question. In its Temperature Guidance, EPA suggested a standard of 9°C or colder to protect bull

¹² NWEA does not challenge the biological opinion with respect to the remaining six species considered by the FWS in this biological opinion, although it notes that the BiOp appears to lack species specific analysis on adverse effects to the other affected species.

trout spawning, a figure that FWS actively supported throughout development of the Guidance.

Notwithstanding the EPA Guidance, Oregon established a “joint” spawning and rearing criterion of 12°C.¹³ FWS in its BiOp concurred with EPA that this standard may affect but was not likely to adversely affect bull trout because “any adverse effects are believed to be discountable.” The Consultation Handbook defines “discountable” adverse effects as those “*extremely unlikely to occur.*” FWS 257 at 06673 (emphasis added). However, the record in this case indicates that adverse impacts to spawning bull trout due to the 12°C criterion are in fact likely – if not certain – to occur, rendering FWS’s conclusion arbitrary and capricious.

The record in this case unequivocally indicates that FWS determined bull trout require water 9°C or colder to spawn. FWS 2 at 00128; FWS 518 at 10057; *see also* FWS 419 at 09097 (peak spawning occurs at 7°C and optimal temperatures for egg incubation are between 2°C and 6°C). For this reason, the FWS “strongly” supported a 9°C spawning criterion for bull trout during the development of the Temperature Guidance; and the EPA ultimately adopted this criterion in its Guidance. *Id.* at 09,097; FWS 421 at 09,134. And, as a matter of historical fact, Oregon’s previous water quality standard for bull trout established a 10°C criterion as “necessary to maintain the viability of native Oregon bull trout.” OR. ADMIN. R. 340-041-0205(2)(b)(A)(iv) (2003) (superseded OR. ADMIN. R. 341-041-0028(4)(f) (2004)). Ultimately, Oregon deviated upwards from its previous criterion for bull trout, as well as EPA’s Temperature Guidance, and adopted a 12°C criterion, a temperature that is “outside the optimal temperature range...to support bull trout spawning.” FWS 2 at 00155.

¹³ Utilizing a joint criterion to cover more than one designated use is acceptable, and NWEA acknowledges the peer review panel’s conclusion that utilizing a joint criterion is acceptable. What is not acceptable is setting the joint criterion at a level that does not protect the most sensitive use, in this case spawning. *See* NWEA CWA brief at 21-22.

Underlying this decision is a blanket assumption, made by Oregon and accepted uncritically by both EPA and FWS, that by setting the maximum summer time temperature for Oregon's rivers and streams, *all* of the water bodies where bull trout spawning and rearing is designated will cool from 12°C at the summer maximum to 9°C when bull trout begin to spawn. FWS 2 at 00156. In other words, there will be some lag time between when the summer maximum water temperature is met and when bull trout begin to spawn, and that lag time will allow for sufficient cooling to protect spawning. The fallacy of this assumption is clearly evident because bull trout spawn during the summer. FWS 419 at 09110-11 (“EPA is *most concerned* about protecting spawning and egg incubation that occurs *during, or soon before or after*, the period of summer maximum temperatures.”). Since bull trout can and do spawn during summer maximum temperatures, it is simply impossible for any cooling to occur.

This is precisely the case in seven basins¹⁴ in Oregon where bull trout begin to spawn around August 15th. Given that “[m]aximum stream temperatures in Oregon are typically reached in July or August,” nothing in the record indicates that temperatures will drop from their 12°C maximum in these streams to reach 9°C when bull trout begin to spawn.¹⁵ FWS 2 at 00156. On the contrary, FWS was actually well aware of this problem. The agency noted during the creation of the Temperature Guidance that “[i]n sites where spawning occurs at a time close to

¹⁴ These include the Klamath, Willamette, Grande Ronde, Hood River, Deschutes, Powder, and Malheur basins. FWS 42 at 00799.

¹⁵ Plaintiff does not dispute that where water never reaches 12°C at the summer maximum, water temperatures will cool below 9°C by August 15th. Such is the case in the Metolius River, in which the summer maximum temperature never reaches 12°C. But, if every river in Oregon were like the Metolius, then Oregon's assumption about cooling water would be superfluous. And, it may be possible that temperatures can fall to 9°C by September 1st where the summer maximum is 12°C, as is the case for Rock Creek on the Powder River. FWS 79 at 00924. However, there are no data in the record to support the assertion that water temperatures will fall to 9.0°C by August 15 *when the summer maximum temperature is at 12°C*.

the summer maximum, application of the criterion for juvenile rearing *may not be protective of spawning and incubation.*” EPA 783 at 024786 (emphasis added). Thus, FWS concluded more strongly that “[s]pecific criteria protecting sites where early spawning occurs from anthropogenic warming *will be needed.*” *Id.* (emphasis added); *See also* FWS 80 at 00926 (“several bull trout core areas do have early spawning – and those waters need a more protective criteria than 12 C at the time of spawning.”).

Without a specific criterion to protect summer spawning, FWS concluded that spawning bull trout will be exposed to waters outside the optimal temperature range and “[e]ggs laid by early spawners in these basins could be exposed to 12°C.” FWS 293 at 07911. As a result, “a small portion of the bull trout eggs would be exposed to the maximum temperature.” *Id.* And, the record shows that eggs exposed to waters of 6°C-8°C, let alone 12°C, results in “substantially reduced egg survival and size” at emergence. FWS 419 at 09097. Egg exposure to 12°C water clearly meets the definition of take under the ESA, and must be considered an adverse affect by FWS. *See* FWS 293 at 07911 (“if take occurs even of one embryo, its got to be considered an adverse effect.”) (emphasis in original). *See also* 50 C.F.R. § 17.3 (harm, within the definition of “take” includes “significant habitat modification or degradation where it actually kills or injures wildlife by *significantly impairing essential behavioral patterns, including breeding....*”). FWS’s record thus clearly shows that adverse effects to summer spawners is virtually certain, clearly at odds with the BiOp’s conclusion that such effects are not likely to occur, let alone “discountable,” i.e. “extremely unlikely to occur.” FWS 257 at 06673.

FWS’s only remaining rationalization for concluding that the 12°C standard will not adversely affect summer spawning bull trout is that “in those situations, the existing summer maximum temperatures are *likely* to be colder than 12°C and in those situations, the protections

of existing cold water provisions would apply.” FWS 2 at 00156 (emphasis added). But, FWS *does not know* where the Protecting Cold Water¹⁶ criterion will apply because there are no data on current, existing summer water temperatures in these basins. Until FWS or ODEQ does on-the-ground data collection to determine current temperatures in bull trout spawning areas, any conclusion as to where the 12°C criterion may provide protection remains purely speculative. Besides the Metolius River, the record does not contain *any* information for *any* remaining stream or river within the seven basins where bull trout spawn in August in which this provision could actually apply.¹⁷ The Peer Review panel concluded similarly that “[t]here are currently insufficient data to determine whether all summer-spawning bull trout population use unique streams that are colder than the typical bull trout stream.” FWS 15 at 00368. FWS cannot assume that in *every* basin with summer spawning the water temperatures are already 9°C such that the Protecting Cold Water criterion will apply to provide adequate protection to summer spawning bull trout. Given the record’s absence of data to support this assumption, FWS’ conclusion that the 12°C will not adversely affect summer spawning was arbitrary.

During the preparation of EPA’s Biological Evaluation of Oregon’s water quality standards, FWS noted that the “data has not been evaluated for [cooling river temperatures] other than a cursory review.” FWS 266 at 07605. The record does not indicate any further review or analysis of cooling river temperatures in August to support FWS’s assumptions regarding cooling river temperatures after the summer maximum. This cursory review was not legally

¹⁶ For an explanation of the Protecting Cold Water criterion, *see* NWEA CWA brief at 47-50; *see also* OR. ADMIN. R. 340-041-0028(11).

¹⁷ In fact, the record shows that “almost every basin in Oregon will have to [go] through a TMDL process” because nearly every river in Oregon is currently water-quality limited for temperature. FWS 581 at 10905. If waters are out of compliance almost everywhere in the state for temperature, then there is no basis for making an inference that any river will be protected by the Protecting Cold Water criterion.

sufficient for a jeopardy analysis, and the data in the record do not support the position that the agency took. *Albany Engineering Corp. v. F.E.R.C.*, 548 F.3d 1071, 1084 (D.C. Cir. 2008) (Brown, J. concurring) (when an agency offers “nothing but the most cursory of analysis” that is insufficient for the court to conclude that “the agency’s path may reasonably be discerned.”). FWS has failed to articulate a satisfactory explanation as to why its assumptions on cooling river temperature are valid, and how the data in the record supports FWS’s assertion that summer spawning bull trout are sufficiently protected. *Motor Vehicle Manufactures*, 463 U.S. at 43.

Finally, the record makes amply clear that EPA and FWS were concerned more with political, rather than biological, factors when they decided to approve the 12°C criterion.¹⁸ EPA was concerned that if Oregon was unable to meet a more stringent standard, then the “whole CWA program [would] lose credibility.” FWS 569 at 10880. In fact, EPA pushed for a 13°C criterion because there “is some public support for 13C.” FWS 581 at 10907. Instead of focusing exclusively on the biological needs of bull trout, and basing its jeopardy assessment on the best science available, FWS followed EPA’s lead and considered the policy implications of a 12°C criterion when making its decision. FWS flatly declared that “12°C as a guidance for criteria development is pushing the upper temperature limit farther than we can support.” FWS 572 at 10887. Nevertheless, FWS considered the “need to incorporate the ‘feasibility’ standard as well as the biological standard” in determining which temperature threshold to support. FWS 569 at 10879. A FWS employee reminded others involved in this process of assessing whether Oregon’s standard is consistent with the ESA, that “we need to keep in the back of our minds the

¹⁸ These emails reflect several conversations wherein some FWS staff were contemplating an 11°C criterion as opposed to a 12°C criterion. The record still does not support an 11°C temperature standard as protective of bull trout spawning since there are no data in the record that demonstrate that waters will drop from 11°C to 9°C sufficiently rapidly to protect bull trout.

current political climate/administration and what could happen if we can't come to an agreement within this forum.” FWS 581 at 10905. Another FWS official opined that setting this criterion is “where science and the real world must be blended to make policy.” *Id.* at 10906. The FWS may not blend its science or keep the political climate in the back of its mind when making a jeopardy determination. It must make its decision solely on the basis of the best available science. 16 U.S.C. § 1536(a)(2) By relying “on factors which Congress has not intended it to consider,” FWS’s approval of the 12°C standard was arbitrary and capricious. *Motor Vehicle Manufactures*, 463 U.S. at 43.

B. The FWS’s No Jeopardy Conclusion Was Arbitrary and Capricious Because it Fails to Protect Migrating Bull Trout in the Klamath River.

Like the 12°C criterion, Oregon created, and EPA approved, a 20°C Lahontan Cutthroat Trout criterion that will disproportionately harm migratory bull trout. FWS found that this criterion is likely to adversely affect bull trout because the “20°C criterion is substantially higher than temperatures known to support viable populations of bull trout,” and that this criterion will adversely affect “foraging or migrating sub-adult and adult bull trout” by impairing growth, reducing disease resistance and altering behavioral patterns. FWS 2 at 00162. However, FWS concluded that these adverse effects would not result in jeopardy to bull trout because they “will not be of a magnitude, duration, and extent that will affect the long-term recovery of bull trout...” *Id.* at 00163. As demonstrated below, the record does not support this conclusion.

Without migratory bull trout, survival of the species itself is in doubt. *See* FWS 254 at 06534 (“when species are isolated by fragmented habitats...their probability of extinction is directly related to the degree of isolation and fragmentation.”); *see also, Friends of the Wild Swan v. U.S. Fish and Wildlife Service*, 945 F. Supp. 1388, 1391 (D. Or. 1996) (preserving

migrating bull trout and the maintenance of migration corridors “*is crucial to the viability of bull trout populations*”) (emphasis in original); *Wild Fish Conservancy v. Kempthorne*, 613 F. Supp. 2d 1209, 1225 (E.D. Wash. 2009) (“Spawning migration is the most critical movement necessary for the survival of bull trout populations.”). As a consequence, reconnecting isolated populations of bull trout is “imperative to their survival and recovery.” FWS 2 at 00176. Migratory bull trout play a crucial role in allowing gene flow among populations and provide the mechanism for local populations to become reestablished if a population is extirpated by a catastrophic event. *Id.* at 00126.

Just like a dam, hot water temperatures act as a barrier to bull trout migration. In fact, once water temperatures rise above 13°C, bull trout migratory behavior can be blocked. EPA 121 at 014577. Exposure to temperatures above 13°C “during spawning migrations also increase the harmful metabolic effects on adult fish.” *Id.* Because of this critical biological constraint, FWS suggested to ODEQ and EPA a “13-15 [temperature standard] as an interim for bull trout foraging and migration during the summer where they are located.” FWS 581 at 10906. FWS felt a 13°C-15°C standard for bull trout foraging and migration was necessary because “16, 18, and 20 [degrees Celsius] are just too warm” for bull trout. *Id.* Oregon never promulgated a beneficial use for bull trout migration, and EPA approved this decision even though this is a clear step backwards from its earlier efforts in Oregon to designate migration corridors for bull trout. *See NWEA I*, 268 F. Supp. 2d at 1267 (finding EPA’s approval of Oregon’s WQS unlawful for failing to designate bull trout migration corridors).

As a result of that decision, migrating bull trout are only protected insofar as their range overlaps with other temperature criteria designed to protect foraging and migration of salmon

and steelhead.¹⁹ However, in areas where salmon or steelhead *are not present*, bull trout that attempt to migrate within a river basin will be exposed to 20°C water under a criterion designated only to protect Lahontan Cutthroat Trout.²⁰ In three river basins in Oregon, migratory bull trout will be exposed to 20°C water virtually everywhere downstream of their spawning grounds. *See e.g.*, FWS 73 at 00917. Most critically, one of the basins where bull trout will be impacted by this standard is the Klamath Basin.²¹ *Id.* In the Klamath DPS, bull trout will be exposed an 8°C increase in water temperature directly downstream of bull trout spawning areas. When FWS realized how the 20°C criterion would apply in the Klamath, it stated “that’s going to be a problem.” FWS 359 at 08674.

Instead of solving this problem and finding an alternative means of protecting bull trout, FWS offered several rationales for why the adverse impacts to bull trout from exposure to the 20°C Lahontan Cutthroat Trout criterion will not result in jeopardy, none of which are supported by the record. First, the BiOp states “the interagency team believes that temperatures will be cold enough in May and June” to support bull trout in “a significant portion” of the affected basins. FWS 2 at 00175. Nothing in the record supports this assumption. If anything, communications within the “interagency team” strongly suggest the opposite – that waters designated as 20°C will *not* be cool enough to protect bull trout in May and June. The lead FWS biologist on the interagency team said “[t]he assumption we’re using for 18 water in the other

¹⁹ For example, the 13°C Salmon and Steelhead Spawning Through Fry Emergence criterion will provide some incidental additional protection for migratory bull trout in the Middle Fork Willamette River, the McKenzie River, the Umatilla River, the Walla Walla River, the Hood River, the Grande Ronde River, and the John Day basin. FWS 2 at 00157.

²⁰ While bull trout could, in theory, be protected by the 16°C Core Cold Water criterion, “the decision rules used to identify beneficial uses provided very little 16 °C core cold water habitat” for bull trout. FWS 2 at 00162. *See also* NWEA’s companion brief at 32-39.

²¹ The 20°C Lahontan Cutthroat Trout criteria is also applied broadly in the Powder Basin and Malheur Basin within the Columbia River DPS. FWS 2 at 00162.

basins is that it will get down to 16 when BT need it, but I don't feel comfortable using that assumption for 20." FWS 359 at 08673. A 20°C criterion at the summer maximum does not guarantee that waters must fall below 16°C in the month or two preceding that maximum. In fact, FWS suggested to ODEQ that it lower the Lahontan Cutthroat Trout criterion from 20°C to 18°C, because then there was at least a possibility that bull trout would not be adversely impacted. *Id.* ODEQ responded that it was too late to "make this kind of change at this point." *Id.* FWS then simply dropped its suggestion and concluded in its BiOp that the 20°C criterion was not a significant problem.

FWS's BiOp also asserts that the Protecting Cold Water criterion will offset adverse effects of the 20°C criterion. FWS 2 at 00168. But, just like FWS's decision on the 12°C standard, FWS cites no data to support such a conclusion. The Protecting Cold Water criterion only applies in limited situations where current water temperatures are already colder than the applicable criterion. It would be one thing if FWS had some information on where this criterion will apply in the Klamath. But the record does not contain such information, thus FWS cannot rely on some unfounded future expectation when making a no jeopardy conclusion.

Third, FWS asserts that the 20°C standard will be applied "downstream of much colder bull trout spawning and rearing criterion (12 °C) causing temperatures to gradually increase downstream." FWS 2 at 00163. Nothing in the record supports such a generalized assumption; on the contrary, the only relevant information in the record shows that water temperatures in the Klamath Basin can increase rapidly over short distances. *See* FWS 180 at 01864 ("The maximum summer temperature in upper Deming Creek where bull trout are present was 17.4°C, while in a degraded section...located *only a few kilometers downstream* where bull trout were absent, the maximum temperatures increased to 29.3°C.") (emphasis added); *see also Id.* at

01866 (temperatures in Long Creek increased from 15°C to 21°C through a 2.0 km meadow).

Finally, FWS asserts that the 20°C criterion will not result in jeopardy because it will be applied “in conjunction with salmon and steelhead spawning criteria.” FWS 2 at 00163. This rationale clearly illustrates that FWS was not making a DPS specific analyses when it completed the BiOp. The 20°C Lahontan standard *only* applies in basins (such as the Klamath) where there are no salmon or steelhead present, and thus no salmon and steelhead spawning criteria designated. Therefore, adverse effects to the Klamath bull trout DPS cannot possibly be mitigated by *any* salmon and steelhead criteria. The only locations where any salmon and steelhead criteria benefit bull trout are in the Columbia River Basin because salmon and steelhead distribution overlaps with bull trout in the Columbia DPS. It may be possible that bull trout will receive some benefit from these overlapping salmon criteria because bull trout could potentially migrate from areas that are designated for Lahontan Cutthroat Trout into areas designated for salmon and steelhead. However, it is factually and biologically impossible for Klamath River bull trout to receive any conservation benefit from anything that occurs in the Columbia River DPS. FWS’s no jeopardy conclusion is arbitrary because it failed to separately consider the Klamath River DPS in the proper context as a distinct listed species.

What this all means for migrating bull trout in the Klamath is simple. The 20°C Lahontan Cutthroat Trout criterion designated throughout the lower Klamath Basin has essentially foreclosed the possibility of bull trout migration; the record indicates bull trout cannot migrate through extensively designated 20°C water. As FWS Consultation Handbook defines the term, “survival is the condition in which a species continues to exist into the future while retaining the *potential* for recovery.” FWS 257 at 06675-76. Without the ability to migrate, bull trout in the Klamath have no potential for recovery. FWS 254 at 06535 (“Where migratory bull

trout are not present, isolated populations cannot be replenished when a disturbance makes local habitats unsuitable.”). Accordingly, FWS acted arbitrarily in determining that adverse effects on the Klamath River DPS stemming from the 20°C criteria will not result in jeopardy.

Throughout the BiOp, FWS has relied on unfounded predictions and assumptions to reach its conclusions on both the 12°C and 20°C criteria. Absent a reasoned analysis, based on *meaningful* data, the FWS’s determinations are not entitled to deference, and the FWS BiOp must be remanded to the agency. *NRDC v. Daley*, 209 F.3d 747, 755-56 (D.C. Cir. 2000); *Gifford Pinchot*, 378 F.3d at 1074 (where analysis is missing, the court shall not infer an “analysis that is not shown in the record.”).

V. THE SERVICES’ INCIDENTAL TAKE STATEMENTS ARE UNLAWFUL BECAUSE THEY LACK VALID TRIGGERS FOR THE RE-INITIATION OF CONSULTATION.

When a proposed action results in a no jeopardy finding, but will still result in take of a listed species, the Services must authorize “incidental” take through an Incidental Take Statement (ITS). An ITS must specify “the amount or extent of such incidental taking on the species,” 50 C.F.R. § 402.14(i)(1). If the amount of take that results from actual implementation of the proposed action exceeds the limit set forth in the ITS, the action agency must reinitiate consultation immediately with the Services. 50 C.F.R. § 402.14(i)(4). This numeric “trigger” for reinitiating section 7 consultation serves a vital purpose in protecting listed species. Without a meaningful trigger, an action agency, such as EPA, would be unable to fulfill the “monitoring function the ESA and its implementing regulations clearly contemplate.” *Oregon Nat. Resources Council v. Allen (ONRC)*, 476 F.3d 1031, 1040 (9th Cir. 2007). Congress had a “clear preference” that the Services establish a numerical limit of individuals that would be taken as a result of the proposed action, which if exceeded, would trigger the re-initiation of consultation.

Arizona Cattle Grower's Ass'n, 273 F.3d at 1250. However, when a numerical level of take cannot be precisely set, a surrogate measurement, with a "causal link" between the proposed activity and the surrogate, may be employed instead. *Id.* at 1250; see also FWS 257 at 066777. Without a trigger, there is no "possibility of a revived consultation," creating the risk of excessive take into the indefinite future. *Id.*

NMFS's BiOp is facially invalid because there is no limit on incidental take, either through a numeric limit or a surrogate. NMFS 2 at 55-56. While there is little doubt that determining incidental take in this context is difficult, the difficulty of a problem is not an excuse for an agency to not try at all to do so. *See generally Northwest Environmental Advocates v. U.S. E.P.A.*, 537 F.3d 1006, 1026 (9th Cir. 2008) ("this ambitious statute is not hospitable to the concept that the appropriate response to a difficult pollution problem is not to try at all.").

The Fish and Wildlife Service's incidental take statement fails to establish a valid surrogate as a trigger for the reinitiation of consultation because it is coextensive with the EPA action. The Ninth Circuit is clear that an ITS is invalid where "the permissible level of take is coextensive with the project's own scope." *ORNC*, 476 F.3d at 1039. By setting incidental take at whatever level of take occurs in waters that meet the revised water quality standard, the FWS's incidental take statement and BiOp are "rendered tautological, they both define and limit the level of take using the parameters of the project." *Id.* As both BiOps stand now, the Services have no way of knowing that compliance with WQS will not result in too much take, because neither contains a valid trigger for the re-initiation of consultation.

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CONCLUSION

For the above reasons, the biological opinions are arbitrary and capricious, and must be remanded to the Services for a proper analysis.

Dated this 27th day of April, 2010.

Respectfully submitted

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